

131/108, 109.1, 109.3, 109.2, 84.3, 84.4, 110,
~~108~~

WHAT IS CLAIMED IS:

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- A method of converting a mixture of short and long tobacco particles into a rod-like filler, comprising the steps of:
- 1 segregating the short particles of the mixture from the long particles;
 - 2 advancing an elongated stream of segregated long particles along a predetermined path; and
 - 3 admitting into the path short particles for heterogeneous distribution in the stream.

1 ~~6.~~ The method of claim 1, further comprising the
2 step of gathering short particles into a mass prior to
3 said admitting step.

1 ~~7.~~ The method of claim 6, wherein said admitting
2 step includes monitoring the quantity of short particles
3 in the mass and introducing short particles from the mass
4 into the stream at a rate which is dependent upon the
5 quantity of short particles in the mass.

1 ~~8.~~ The method of claim 1, further comprising the
2 steps of gathering short particles into unequal batches
3 prior to said admitting step and thereupon equalizing
4 the batches, said admitting step including introducing
5 equalized batches of short particles into said path at
6 at least substantially identical intervals.

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~~9.~~ Apparatus for building a tobacco filler for
the making of rod-shaped smokers' products from a mixture
of short and long tobacco particles, comprising:
means for segregating short particles of the
mixture from the long particles;
means for advancing an elongated stream of
segregated long particles along a predetermined path;
and
means for admitting into longitudinally spaced-
apart portions of the elongated stream batches of
segregated short particles in a heterogeneous distribu-
tion.

1 → 10. The apparatus of claim 9, wherein said
2 advancing means includes an endless foraminous conveyor
3 and means for attracting segregated long particles and
4 batches of short particles to said conveyor.

1 → 11. The apparatus of claim 9, wherein said
2 admitting means includes a rotary suction drum having
3 a peripheral array of suction chambers for the delivery
4 of batches of short particles to a predetermined portion
5 of said path.

1 → 12. The apparatus of claim 11, further comprising
2 means for converting the stream into discrete fillers
3 of rod-shaped smokers' products having a predetermined
4 length, said suction chambers having a length, as seen
5 circumferentially of said drum and longitudinally of said
6 path, which is less than said predetermined length.

1 → 13. The apparatus of claim 11, wherein said path
2 has a width exceeding the width of a batch and said drum
3 is arranged to deliver batches of short particles at
4 least substantially centrally of said path.

~~14.~~ The apparatus of claim 9, wherein said segregating means comprises at least one mobile sieve having a mesh such that the sieve permits at least some short particles to pass therethrough but intercepts at least the majority of long particles.

~~15.~~ The apparatus of claim 9, further comprising means for collecting short particles upon segregation from long particles.

~~16.~~ The apparatus of claim 15, further comprising means for monitoring the quantity of short particles in said collecting means.

→ 17. The apparatus of claim 9, wherein said admitting means comprises a vibratory conveyor arranged to transport segregated short particles from said segregating means toward said path, and a suction conveyor arranged to attract short particles from said vibratory conveyor and to deliver the thus attracted short particles to said path.

1 18. The apparatus of claim 9, further comprising
2 means for collecting short particles upon segregation
3 from long particles, said admitting means including a
4 conveyor for advancement of short particles to said path
5 and means for transferring metered quantities of short
6 particles from said collecting means to said conveyor.

1 → 19. The apparatus of claim 9, wherein said
2 admitting means includes means for trimming the batches
3 prior to entry into said path.

1 → 20. The apparatus of claim 9, wherein said
2 admitting means includes a first suction conveyor
3 rotatable about a horizontal axis and said advancing
4 means comprises a second suction conveyor disposed at
5 a level above said first suction conveyor and arranged
6 to accept short particles from said first conveyor.